

U.S.S.N. 10/063,498

2

199-1941 (FGT 1503 PA)

In the claims:

1. (Currently Amended) A method of adaptively controlling the speed of an automotive vehicle having a controller comprising:

detecting an object and generating an object profile;

generating a navigation signal via a navigation system;

detecting a future path of the automotive vehicle in response to said navigation signal;

generating a predicted future path profile in response to said future path and said object profile; and

inhibiting a resume speed of the automotive vehicle by preventing acceleration of the automotive vehicle in response to said predicted future path profile via the controller.

2. (Original) A method as in claim 1 further comprising continuously updating said predicted future path profile.

3. (Original) A method as in claim 2 wherein updating said predicted future path profile includes updating parameters selected from the following group comprising: object profile, yaw rate, street category, and upcoming future road paths.

4. (Currently Amended) A method as in claim 1 further comprising:

determining that said object is a stopped object;

adjusting automotive vehicle speed in relation to said stopped object; and

maintaining a safe operating distance between the automotive vehicle and said stopped object.

5. (Original) A method as in claim 1 further comprising assuming a future road condition selected from the following group comprising: road

U.S.S.N. 10/063,498

3

199-1941 (FGT 1503 PA)

curvature, speed category, number of lanes, and road inclination is the same as a present road condition.

6. (Original) A method as in claim 1 wherein detecting the future path of the automotive vehicle comprises:

sensing yaw rate of the automotive vehicle and generating a yaw rate signal;

relating said yaw rate to road curvature; and

inhibiting resume speed of the automotive vehicle in response to said yaw rate signal.

7. (Original) A method as in claim 1 wherein detecting the future path of the automotive vehicle comprises using a navigation system to generate a navigation signal including information selected from the following group comprising: automotive vehicle position, speed category, future path of the automotive vehicle, landmark location, road curvature, overhead object location, bridge location, construction zone, number of lanes, road type, and road inclination.

8. (Original) A method as in claim 1 wherein generating an object profile comprises storing object parameters selected from the following list comprising: relative distance from the automotive vehicle, object location relative to a road, and velocity of said object relative to the automotive vehicle velocity.

9. (Original) A method as in claim 1 wherein generating a predicted future path profile further comprises determining object location with respect to the future path of the automotive vehicle.

10. (Original) A method as in claim 1 wherein inhibiting the resume speed of the automotive vehicle further comprises inhibiting resume speed of the automotive vehicle while a present parameter selected from the following group comprising: road curvature, speed category, number of lanes, and road inclination remains constant.

U.S.S.N. 10/063,498

4

199-1941 (FGT 1503 PA)

11. (Currently Amended) A method of adaptively controlling the speed of an automotive vehicle having a controller comprising:

sensing yaw rate of the automotive vehicle;

generating a yaw rate signal; and

inhibiting resume speed of the automotive vehicle by preventing acceleration of the automotive vehicle in response to said yaw rate signal.

12. (Original) A method as in claim 11 further comprising:

detecting an object and generating an object profile;

detecting a future path of the automotive vehicle and generating a predicted future path profile;

assuming a future road condition to be the same as a present road condition; and

inhibiting resume of the automotive vehicle in response to said object profile, said assumption, and said predicted future path profile.

13. (Original) A method as in claim 11 wherein detecting a future path of the automotive vehicle is in response to a navigation signal.

14. (Original) A method as in claim 11 further comprising adjusting the automotive vehicle speed in response to said object profile and said predicted future path profile to avoid a stopped object.

15. (Original) A method as in claim 11 wherein said controller in response to said object profile and said predicted future path profile signals a warning system.

16. (Currently Amended) A control system for an automotive vehicle comprising:

a detection system detecting an object, said detection system generating a object profile;

U.S.S.N. 10/063,498

5

199-1941 (FGT 1503 PA)

a navigation system generating a navigation signal; and

an in-vehicle controller electrically coupled to said detection system and said navigation system, said controller in response to said object profile and said navigation signal, generating a predicted future path profile and inhibiting resume speed of the automotive vehicle by preventing acceleration of the automotive vehicle in response to said predicted future path profile.

17. (Original) A system as in claim 16 wherein said controller in generating a predicted future path profile determines an object location with respect to the future path of the automotive vehicle.

18. (Original) A system as in claim 16 wherein said controller determines said object to be a stopped object and adjusts the speed of the automotive vehicle in relation to said stopped object.

19. (Currently Amended) A control system for an automotive vehicle comprising:

a yaw rate sensor sensing yaw rate of the automotive vehicle, said yaw rate sensor generating a yaw rate signal; and

a controller electrically coupled to said yaw rate sensor, said controller inhibiting resume speed of the automotive vehicle by preventing acceleration of the automotive vehicle in response to said yaw rate signal.

20. (Original) A system as in claim 19 further comprising:

a radar system detecting an object, said radar system generating an object profile; and

a navigation system generating a navigation signal;

said controller electrically coupled to said radar system and said navigation system, said controller in response to said object profile and said navigation signal generating a predicted future path profile and inhibiting resume speed of the automotive vehicle in response to said predicted future path profile.